PART 71 FEDERAL OPERATING PERMIT
STATEMENT OF BASIS

ASARCO
Mission Mine Complex - San Xavier
Permit No. TO-ROP 10-02

1. Facility Information

a. Permittee

ASARCO LLC
4201 W. Pima Mine Road
Sahuarita, AZ 85629

b. Facility location

4201 W. Pima Mine Road
Sahuarita, AZ 85629

c. Contact information

Facility Contact: Jamie Ekholm	(520) 393-4671
Responsible Official: Richard Rhoades	(520) 648-2500

d. Description of operations, products

ASARCO LLC - Mission Complex mines and processes copper sulfide ore. Mining activities that generate emissions include metallic mineral processing activities such as crushers, screens, and belt transfer points, as well as drilling, hauling, and vehicle travel.

e. Jurisdiction and permitting history

This facility was initially constructed in the 1961. Since the mine is located partially in Indian Country and partially on State land, permitting authority is shared by EPA and the Pima County Department of Environmental Quality (DEQ). DEQ issues construction and title V permits for the portion of this facility which is located on state land, where crushing, screening and transferring of ore takes place. EPA has jurisdiction over the equipment and activities located on the reservation of the Tohono O'odham Nation, which include drilling, hauling, and vehicle travel. These mining activities on the reservation have not previously

required a preconstruction permit from EPA. There are no Clean Air Act ("CAA") applicable requirements that apply to these activities, and actual emissions are well below the title V major source threshold. However, because the portion of the mine on the reservation is part of a major source subject to title V permitting, it must obtain a separate title V permit from EPA in addition to the title V permit issued by DEQ. EPA issued the initial title V permit for the portion of the facility on the reservation on September 5, 2000, and the first renewal permit on December 16, 2005.

f. Emission-generating units and activities

Table 1. Emission-generating units and activities

Emission Unit I.D. No.	Unit Description	Associated Control Equipment
SXFMA	San Xavier Fugitive Emissions Mining Activities (hauling, dozing, grading, land clearing, vehicle travel, and unloading)	n/a

g. Potential to emit (in tons/year)

Potential to emit ("PTE") means the maximum capacity of a facility to emit any air pollutant regulated under the CAA under its physical and operational design. Any physical or operational limitation on the maximum capacity of ASARCO LLC – Mission Complex to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted or processed, shall be treated as part of its design if the limitation is enforceable by EPA. PTE is meant to be a worst case emissions calculation and is used in many, though not all, cases to determine the applicability of federal requirements. Actual emissions are typically lower than PTE.

All emissions from the portion of the facility on the reservation are fugitive. Under the Part 71 regulations, fugitive emissions from a stationary source are not considered when determining whether the source is major unless the source belongs to one of the 27 source categories listed in the definition of "major source" (40 CFR Part 71.2). ASARCO LLC - Mission Mine Complex is not in one of the listed source categories. Table 2 shows the mines PTE of fugitive emissions; but these emissions do not count when determining whether the mine is a major source.

Table 2. Fugitive Emissions from Mining Activities on Tohono O'odham Nation Reservation (in tons/year)

Unit	NO_x	VOC	SO_2	PM_{10}	CO	Lead	HAP
SXFMA	135.2	< 1	18.4	2823.3	490.4	< 1	< 1

The point source (i.e., non-fugitive) emissions from the portion of the mine in Pima County, provided by PDEQ, are presented in Table 3. These emissions make the mine a major source for the purposes of the title V program.

Table 3. Potential to Emit From Point Sources on Pima County Portion of the Mine (in tons/year)

NO_x	VOC	SO_2	PM_{10}	CO	HAP
246	< 100	< 100	300	314	< 10/25

2. Tribe Information

a. General

The reservation of the Tohono O'odham Nation is located in Pima County, Arizona and covers more than 2.8 million acres over four non-contiguous areas. The San Xavier District of the reservation, which covers approximately 71,000 acres, currently is home to more than 2,000 people.

b. Local air quality and attainment status

The San Xavier District of the Tohono O'odham Nation is currently designated as attainment or unclassifiable for all pollutants for which a National Ambient Air Quality Standard ("NAAQS") has been established.

3. Applicable Requirements

The portion of the mine on the reservation is currently not subject to any existing applicable federal CAA programs, such as the Prevention of Significant Deterioration ("PSD"), New Source Performance Standards ("NSPS"), National Emission Standards for Hazardous Air Pollutants ("NESHAP"), or the acid rain program under Title IV of the CAA. Further, the portion of the mine covered by the Part 71 permit is not subject to the Pima County State Implementation Plan ("SIP"). Therefore, this portion of the mine is not subject to any substantive requirements that control emissions under the CAA.

EPA recognizes that, in some cases, sources of air pollution located in Indian country are subject to fewer requirements than similar sources located on land under the jurisdiction of a state or local air pollution control agency. To address this regulatory gap, EPA has promulgated a Federal Implementation Plan for preconstruction review of major sources in nonattainment areas and of minor sources in both attainment and nonattainment areas, which became effective on August 30, 2011. (76 FR 38748, July 1, 2011) These programs, codified in Parts 49 and 51 of the Code of Federal Regulations, establish pre-construction review requirements for sources that would be incorporated into Part 71 permits. The facility is not currently constructing new emission units or modifying existing emission units in the portion of the facility regulated by EPA. In the future, if the facility constructs new emission units or modifies existing emission units, it may be required to obtain a permit from EPA prior to construction, depending on the amount of the emission increase, if any, associated with the project.

4. Inapplicable Requirements

The facility occasionally operates three diesel-fired generators on the reservation. These engines are parts of motivators, which are mounted on flatbed trailers and used to move shovels from location to location at the Mission Complex facility, including the portion permitted by EPA. The primary purpose of a motivator is to provide power to propel a shovel. The motivator attaches to, powers, and propels the shovel as the shovel moves throughout the facility.

EPA regulates diesel-fired engines in the Standards of Performance for New Stationary Sources (NSPS) for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60, Subpart IIII), and the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63, Subpart ZZZZ). Subpart IIII defines "stationary internal combustion engine" (§60.4219) as (emphasis added):

> …any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is *not mobile*. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is *not a nonroad engine as defined at 40 CFR 1068.30* (excluding paragraph (2)(ii) of that definition), and *is not used to propel a motor vehicle* or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

The definition of "stationary reciprocating internal combustion engine (RICE)" in NESHAP Subpart ZZZZ contains language identical to the italicized language above. The definition of nonroad engine in §1068.30 is an internal combustion engine that meets any of three specified criteria. The engines used on the motivators meet two of the three criteria listed in §1068.30:

- It is (or will be) used in or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers).

- By itself or in or on a piece of equipment, it is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles,

dolly, trailer, or platform.

However, the definition excludes any engine that "remains or will remain at a location for more than 12 consecutive months… A location is any single site at a building, structure, facility, or installation." EPA has determined that engines, such as the engines on ASARCO's motivators, that are located at a facility but moved around the facility, are not stationary engines unless they remain at the same location within the facility for more than 12 months.[1] Thus the three engines used in the motivators meet the definition of nonroad engines 40 CFR 1068.30 and are not subject to NSPS or NESHAP requirements, as long as they do not remain at one location within the facility for more than 12 months.

We note that there is an exception to the nonroad definition for engines that replace stationary engines. Subsection (2)(iii) of the nonroad engine definition provides that, "[a]ny engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period." Therefore, "[p]ortable engines that replace existing stationary engines at the same location on a temporary basis and that are intended to perform the same or similar functions are considered stationary engines." [2] In this case, Asarco has indicated that its motivators are occasionally used for power generation purposes during power interruptions. If a motivator is used to temporarily replace an existing stationary engine at the facility, then it would be considered a stationary engine. However, it appears unlikely that the motivators are used for this purpose on the San Xavier portion of the facility, since there are no stationary engines in this part of the facility.

ASARCO requested that EPA grant permit shields for NSPS Subparts IIII and JJJJ (which applies to spark ignition engines) and NESHAP Subpart ZZZZ. Sources may request, and permitting authorities may grant at their discretion, permit shields under two circumstances. A permitting authority may grant a shield from an applicable requirement if it has been incorporated into the permit, or if the permitting authority determines that a requirement is not applicable to the source. In light of our explanation that the engines are nonroad engines and thus not regulated by NSPS or NESHAP, and the fact that the engines are not part of the stationary source and will not be listed in the permit, EPA does not believe it is necessary to further clarify the inapplicability of NSPS and NESHAP requirements by granting the requested permit shields.

5. EPA Authority

Title V of the CAA requires that EPA promulgate, administer, and enforce a Federal operating permits program when a State, local, or Tribal agency does not submit an approvable program within the time frame set by title V or does not adequately administer and enforce its EPA-approved program. On July 1, 1996 (61 Fed. Reg. 34202), EPA adopted regulations codified at

[1] See Response to Public Comments on Proposed National Emission Standards for Hazardous Air Pollutants for Existing Stationary Reciprocating Internal Combustion Engines Located at Area Sources of Hazardous Air Pollutant Emissions or Have a Site Rating Less Than or Equal to 500 Brake HP Located at Major Sources of Hazardous Air Pollutant Emissions (Aug. 10, 2010) , available at http://www.epa.gov/ttn/atw/rice/existing_si_rice_rtc.pdf

[2] Standards of Performance for Stationary Compression Ignition and Spark Ignition Internal Combustion Engines, 76 Fed. Reg. 37954, 37958-37959 (June 28, 2011).

40 C.F.R. Part 71 setting forth the procedures and terms under which the Agency would administer a Federal operating permits program. These regulations were updated on February 19, 1999 (64 Fed. Reg. 8247) to incorporate EPA's approach for issuing Federal operating permits to covered stationary sources in Indian country.

As described in 40 C.F.R. 71.4(a), EPA will implement a part 71 program in areas where a State, local, or Tribal agency has not developed an approved part 70 program. Unlike States, Indian Tribes are not required to develop operating permits programs, though EPA encourages Tribes to do so. See, e.g., Indian Tribes: Air Quality Planning and Management (63 FR 7253, February 12, 1998) (also known as the Tribal Authority Rule). Therefore, within Indian country, it is appropriate that EPA administer and enforce a part 71 Federal operating permits program for stationary sources until Tribes receive approval to administer their own operating permits programs.

6. Endangered Species Act

Pursuant to Section 7 of the Endangered Species Act (ESA), 16 U.S.C. § 1536, and its implementing regulations at 50 CFR Part 402, EPA is required to ensure that any action authorized, funded, or carried out by EPA is not likely to jeopardize the continued existence of any Federally-listed endangered species or threatened species or result in the destruction or adverse modification of such species' designated critical habitat. The title V permit renewal that EPA is issuing to ASARCO LLC - Mission Complex does not authorize the construction of new emission units, or emission increases from existing units, nor does it otherwise authorize any other physical modifications to the facility or its operations. Therefore, EPA has concluded that the issuance of this permit will have no effect on listed species or their critical habitat.